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CLAIM AMENDMENTS

Please amend the claims (strikethrough indicating deletion and <u>underline</u> indicating insertion) as follows:

1 - 34 (cancelled)

35. (new) A process for recognizing an image, said process comprising:

identifying a key image;

imposing an input vector based on the key image to a learning module of a computer-based neural network;

assigning connection values based on the input vector; and

classifying at least one target image based on a Markov chain distribution function.

- 36. (new) The process of Claim 35, wherein the step of classifying at least one target image comprises outputting a determination of a match between the key image and the target image.
- 37. (new) The process of Claim 35, wherein the step of classifying at least one target image comprises ranking a plurality of target images based on their likelihood of matching the key image.
- 38. (new) The process of Claim 35, wherein the step of classifying at least one target image comprises outputting at least one image/classification/weight triplet.
- 39. (new) The process of Claim 35, further comprising searching an image source for target images.
- 40. (new) The process of Claim 39, further comprising outputting a link to a target image within the image source.

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41. (new) A process for determining whether a target image matches a known key image, said process comprising:

identifying a known key image;

imposing an input vector based on the known key image to a learning module of a computer-based neural network;

assigning connection values based on the input vector;

forming a Markov chain distribution function; and

outputting a determination based on the Markov chain distribution function of whether at least one target image matches the known key image.

- 42. (new) The process of Claim 41, wherein the step of outputting a determination based on the Markov chain distribution function of whether at least one target image matches the known key image comprises generating an image/classification/weight triplet for each target image.
- 43. (new) The process of Claim 41, further comprising ranking a plurality of target images based on their weighted similarity to the known key image.
- 44. (new) The process of Claim 41, further comprising searching an image source for the at least one target image.
- 45. (new) The process of Claim 44, further comprising outputting a link to a location of the at least one target image within the image source.

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46. (new) A process for ranking the similarity of a plurality of target images to a known image, said process comprising:

identifying a known image;

imposing an input vector based on the known image to a learning module of a computer-based neural network;

assigning connection values based on the input vector; and

classifying a plurality of target images based on a Markov chain distribution function, and ranking the target images based on how closely they match the known image.

- 47. (new) The process of Claim 46, further comprising generating an image/classification/weight triplet for each target image.
- 48. (new) The process of Claim 46, further comprising searching an image source for the plurality of target images.
- 49. (new) The process of Claim 48, further comprising outputting a link to a location of each target image within the image source.